Programmatic Biological Assessment for Routine Military Training and Transformation of the 2nd Brigade 25th Infantry Division (Light), U.S. Army

Oahu, Hawaii

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for

U.S. Army Corps of Engineers
Honolulu District
Hawaii

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EXHIBIT 71

Weapon	Ammunition	Potential to Start Fires[2]
	155mm illumination (ILL) 155mm white phosphorus (WP) 155mm Copperhead (laser guided) 155mm RAP (rocket assist)	High High Medium High
AT-4 Anti-Tank Weapon	84mm high explosive anti-tank rocket	Medium
Light Anti-Tank Weapon (LAW)	66mm high explosive anti-tank rocket 35mm subcaliber practice rocket	Medium
Shoulder-Launched Multipurpose Assault Weapon (SMAW)	Launcher Assault Rockets: SMAW practice, SMAW common practice	Medium
Tube-Launched, Optically Tracked, Wire Command Link (TOW), Guided Missile System	TOW blast effect simulator	Low
Grenades	Smoke Grenades: Colored, HC white smoke, and TA smoke practice Explosive Grenades: 40mm M203 and MK19 Training Practice (TP) ,*fragmentation, offensive, practice*	Medium Low
Demolitions	Demolitions (Limit 300 lb. net explosive weight, including bangalore torpedoes)	Medium
Mines	Mines: claymore antipersonnel, inert antipersonnel (volcano delivery device), anti-tank	Medium
Ground Pyrotechnic Signals (Flares)	Handheld	High
Simulators	Simulators: projectile – ground burst, booby trap, hand grenade	Medium
	Smoke Pot	Medium
Fog Oil	Smoke (fog oil) Generator	Low

[1] Source: 25th ID(L) and USARHAW (2000)

[2] Potentials are based on historical fire data. This ignition rating system was developed initially for Makua Military Reservation by USARHAW Range Division, Wildland Fire, and Environmental Division Staff. High explosive rounds receive a low potential to start fires because the explosive nature of the round starves the immediate area of oxygen, resulting in a low potential for ignition. Smoke and illumination rounds have a high potential because there is an exposed flame associated with these munitions. White phosphorus rounds are highly flammable.

10.3 Proposed Transformation Actions at SBMR

10.3.1 Construction

The following construction projects are planned as part of the proposed action:

McCarthy Flats Multi-Purpose Qualification Complex (QTR1) (57835). This complex supports qualification for:

- Pistol (38 cal, 9mm, 45 cal)
- Shotgun and rifle (M16, M4, M14 sniper rifle, M21, M24)
- Machine gun (M60, M249, M240B, M2)

This project will construct a standard Qualification Training Range (Figure 10.c). The range will include 10 lanes for combat pistol and MP qualification, 16 modified record fire lanes, and 4 multipurpose machine gun/sniper lanes. The range will be approximately 500 m wide and 1000 m long. The range will have a similar orientation to the impact area as the CR and MF ranges it is replacing. Primary facilities also include stationary infantry target emplacements, moving infantry target emplacements, zero panel and standing silhouette emplacements, two range control towers, operation and storage building, two ammunition breakdown facilities, two general instruction buildings, latrine, bleacher enclosure, and covered mess. Primary facilities will also include all construction within the perimeter of the range complex, which consists of necessary information systems requirements, earthwork, clearing of unexploded ordnance, electrical service, limit markers, berms, service roads, site drainage, and erosion control. Supporting facilities include all construction outside the perimeter of the range complex and consists of electrical service, fencing, lighting, parking, military vehicle trail, storm drainage, information systems, and site improvements.

This range is required to train and test units of the 25th ID(L) on the skills necessary to detect, identify, engage, and defeat dismounted and mounted enemy forces. This project is specifically required to meet live-fire training requirements for individual and crew-served weapon systems. This range is also required to provide maneuver area in support of the Stryker Brigade Combat Team (SBCT) that will be stationed in Hawaii. Targetry is estimated to consist of 286 stationary infantry targets, 8 moving infantry targets, 26 zero panels, and 10 standing silhouettes.

Training at QTR1 is anticipated to disturb approximately 49 ha (120 ac). The range would be used between 180 and 242 days per year. No combat (i.e., Stryker and Humvee) vehicles would be in service at the range, but between five and ten support vehicles (trucks) would be used per training episode per day.

Battle Area Complex (BAX or BAC) (58144). This complex supports qualification for:

- Graduated live-fire training from squad to company level, and some Battalion exercises
- Incorporates all weapons intrinsic to the SBCT Infantry Company except the Javelin
- Allows a variety of live-fire exercise scenarios

The battle area complex will be constructed in accordance with CEHNC standard design and TC 25-8, *Training Ranges* (HQDA 2002a) with modifications to suit the terrain and scenario for this project (Figure 10.d). Features of this range include: 2-4 course roads with crossover capability, 22 stationary armor targets, 3 moving armor targets, 167 stationary infantry targets, 27 moving infantry targets, 16 machine gun/observation bunkers, 2 grenade/breaching obstacles, 3 landing zones, 13 mortar simulation devices, and 8-16 vehicle firing positions/hull-down defilades. Range operations support facilities will include a vault latrine, bleacher enclosure, covered mess area, range operations center, storage building, an ammunition loading dock and an After Action Review building. Supporting facilities will include site improvements, erosion control, a bivouac area, electrical service, security fencing and gates.

This project is required to provide a digital, multi-purpose battle area complex in support of implementation of evolving Department of the Army and Training and Doctrine Command (TRADOC) Combat Doctrine and Training Strategies. It will allow the 25th ID (L) and US Army Hawaii to meet live-fire maneuver training requirements for individual and crew (mobile gun system) familiarization, and qualification of personal and crew-served weapon systems. Primary uses include gunnery training and qualification requirements for various weapons systems employed by the 25th ID(L), including dismounted infantry platoon tactical live-fire operations, either independent of, or simultaneously with, supporting vehicles. This facility will also satisfy the requirement for zeroing and boresighting the 105-millimeter main gun on the mobile gun system. The facility will contain digital information and telecommunication technologies to safely track and manage all forces undergoing individual and

Table 10.g Comparison of Current and Transformed Ammunition Usage by Range for SBMR.

	FY 05 Projection Un-Transformed (Current)						FY 05 Projection Transformed						Net Difference With Transformation	
RANGE and Ammunition Type	2 Legacy Brigades	Other 25th ID(L)	USMC	Other Units	Total	Tracer Rounds	1 Legacy Brigade & 1 SBCT	Other 25th ID(L)	USMC	Other Units	Total	Tracer Rounds	All Rounds	Tracer Rounds
Grenade House														
5.56mm	281,454	22,542	35,518	30,280	369,794	27,735	192,120	22,542	35,518	30,280	280,460	21,034	-89,334	-6,700
7.62mm	3,771	1,240	4,900	29,551	39,462	4,341	11,942	1,240	4,900	29,551	47,633	5,240	8,171	899
9mm	0	8,047	930	578	9,555		0	8,047	930	578	9,555		0	
40mm M203 TP	3,329	0	0	100	3,429		3,842	0	0	100	3,942		513	
Practice Grenade	8,228	100	492	0	8,820		10,657	100	492	0	11,249		2,429	
Frag Grenade	2,055	0	1,112	0	3,167		2,443	0	1,112	0	3,555		388	
Pyro	1,490	0	0	45	1,535		797	0	0	45	842		-692	
Pyro-Smoke	146	0	0	0	146		57	0	0	0	57		-89	
5.56mm Blank	35,911	0	6,000	0	41,911		43,802	0	6,000	0	49,802		7,891	
7.62mm Blank	3,617	0	800	0	4,417		6,131	0	800	0	6,931		2,513	
MOUT Assault Course							**Urban Assault Course (proposed)**							
5.56mm	281,454	0	28,291	0	309,745	23,231	192,120	0	28,291	0	220,411	16,531	-89,334	-6,700
9mm	0	0	750	0	750		0	0	750	0	750		0	
40mm M203 TP	3,329	0	488	0	3,817		3,842	0	488	0	4,330		513	
Practice Grenade	4,114	0	0	0	4,114		5,329	0	0	0	5,329		1,215	
5.56mm Blank	35,911		23,000		58,911		43,802		23,000		66,802		7,891	
7.62mm	0	0	0	0	0		0	0	0	0	0		0	
7.62mm Blank	3,617	0	0	0	3,617		6,131	0	0	0	6,131		2,513	
Pyro-Smoke	86	0	0	0	86		57	0	0	0	57		-29	
Pyro	1,020	0	0	0	1,020		796	0	0	0	796		-223	
KR 1-A														
5.56mm	0	0	28,291	0	28,291	2,122	0	0	28,291	0	28,291	2,122	0	0
9mm	0	0	750	0	750		0	0	750	0	750		0	
Practice Grenade	32,912	7,866	0	0	40,778		42,630	7,866	0	0	50,496		9,718	
KR 5 Infantry														

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Pyro-Smoke	15	0	0	10	115		57	0	0	0	57		-58	
Pyro	1,489	0	0	0	1,489		910	0	0	0	910		-578	
Infantry Battle Course Village														
5.56mm	146,773	0	0	0	146,773	11,008	128,080	0	0	0	128,080	9,606	-18,693	-1,402
7.62mm	7,594	0	0	0	7,594	835	15,191	0	0	0	15,191	1,671	7,597	836
40mm M203 TP	1,332	0	0	0	1,332		1,537	0	0	0	1,537		205	
Practice Grenade	4,114	0	0	0	4,114		1,066	0	0	0	1,066		-3,048	
5.56mm Blank	35,911	0	0	0	35,911		43,802	0	0	0	43,802		7,891	
7.62mm Blank	3,617	0	0	0	3,617		6,131	0	0	0	6,131		2,513	
Pyro-Smoke	119	0	0	0	119		57	0	0	0	57		-62	
Pyro	1,489	0	0	0	1,489		605	0	0	0	605		-884	
KR 6 Squad Defense Course														
5.56mm	562,908	15,280	7,580	1,025	586,793	44,009	320,200	15,280	7,580	1,025	344,085	25,806	-242,708	-18,203
7.62mm	18,984	4,000	0	200	23,184	2,550	37,977	4,000	0	200	42,177	4,639	18,993	2,089
40mm M203 TP	3,329	0	0	0	3,329		3,842	0	0	0	3,842		513	
Claymore Mine	0	18	0	0	18		0	18	0	0	18		0	
Pyro-Smoke	115	15	0	0	130		57	15	0	0	72		-58	
Pyro-Booby Trap	1,020	46	0	0	1,066		910	46	0	0	956		-110	
5.56mm Blank	35,911	1,400	0	0	37,311		43,802	1,400	0	0	45,202		7,891	
7.62mm Blank	3,585	0	1,200	0	4,785		6,131	0	1,200	0	7,331		2,546	
Combat Pistol Range														
9mm	37,488	87,162	2,000	3,190	129,840								na	
QTR 1 and 1-A														
5.56mm							4,059,160	0	0	0	4,059,160	304,437	na	
7.62mm							38,019	0	0	0	38,019	4,182	na	

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.50 Caliber							143,099	0	0	0	143,099	18,603	na	
9mm							81,776	0	0	0	81,776		na	
12 Ga. Shotgun							1,092	0	0	0	1,092		na	
KR 8														
9mm Tracer	0	5,887	208	200	6,295	6,295	0	5,887	208	200	6,295	6,295	0	0
40mm M203 TP	0	210	0	0	210		0	210	0	0	210		0	
40mm MK 19 TP	57,154	12,707	0	1,900	71,761		156,804	12,707	0	1,900	171,411		99,650	
AT-4	324	4	0	22	350		756	4	0	22	782		432	
KR 9														
40mm M203 TP	16,646	0	0	0	16,646		19,209	0	0	0	19,209		2,563	
40mm M203 HE	5,846	0	0	0	5,846		7,601	0	0	0	7,601		1,754	
40mm MK 19 HE	0	1,113	73	50	1,236		0	1,113	73	50	1,236		0	
CR 1														
5.56mm	3,376,117	414,033	8,727	112,106	3,910,983	293,324	Range facility will go away with Transformation							
7.62mm	0				0		Replaced by proposed QTR1(Schofield) and QTR2 (South Range Acquisition Area)							
5.56mm Blank	0	4,000			4,000									
CR 2														
5.56mm	0	12,269	57,209	2,017	71,495	5,362	Range facility will go away with Transformation							
9mm	0	0	0	497	497		Replaced by proposed QTR1(Schofield) and QTR2 (South Range Acquisition Area)							
Pyro-Smoke	0	0	18	0	18									
Pyro-Booby Trap	0	0	58	0	58									
CR 2A														
5.56mm	0	122,954	0	27,859	150,813	11,311	Range facility will go away with Transformation							
12 Ga. Shotgun	0	1,711	0	9,262	10,973		Replaced by proposed QTR1(Schofield) and QTR2 (South Range Acquisition Area)							
9mm Pistol	0	69,810	0	27,067	96,877									

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CR 3														
5.56mm	0	324,886	0	134,543	459,429	34,457		Range facility will go away with Transformation						
7.62mm	0							Replaced by proposed QTR1(Schofield) and QTR2 (South Range Acquisition Area)						
MF 2														
5.56mm	3,617,268	970,309	0	124,675	4,712,252	353,419		*Range facility will go away with Transformation*						
7.62mm	15,714	42,363	62,410	6,400	126,887	13,958		Replaced by proposed QTR1(Schofield) and QTR2 (South Range Acquisition Area)						
5.56mm Blank	0	13,000	0	0	13,000									
7.62mm Blank	0	0	5,100	0	5,100									
MF 3														
5.56mm	964,605	324,886	0	134,543	1,424,034	106,803		Range facility will go away with Transformation						
								Replaced by proposed QTR1(Schofield) and QTR2 (South Range Acquisition Area)						
MF 4														
5.56mm	0	220,541	0	23,935	244,476	18,336		*Range facility will go away with Transformation*						
9mm	0	0	0	6,000	6,000			Replaced by proposed QTR1(Schofield) and QTR2 (South Range Acquisition Area)						
MF 5														
9mm	27,264	81,428	0	20,840	129,532			Range facility will go away with Transformation						
Claymore Mine	0	164	0	0	164			Replaced by proposed QTR1(Schofield) and QTR2 (South Range Acquisition Area)						
Other Mines	0	188	0	0	188									
Bangalore Torpedo	0	162	0	0	162									
Demo Charges	0	3,320	521	26	3,867									
Ambush #1														
5.56mm	90,482	0	0	0	90,482	6,786	64,040	0	0	0	64,040	4,803	-26,442	-1,983
7.62mm	18,984	0	0	0	18,984	2,088	7,595	0	0	0	7,595	835	-11,389	-1,253
40mm M203 TP	1,332	0	0	0	1,332		1,537	0	0	0	1,537		205	